

## ABSTRACT

5 A speed-up mode control system is operative to generate a speed-up mode signal based on a gain control signal from associated digital circuitry. The speed-up mode signal controls electronics associated with one or more amplifiers to facilitate settling time of an output signal of the amplifier(s) that occurs when the gain of the amplifier changes. The gain control signal also can be delayed to provide a delayed version of the gain control signal for controlling gain of the amplifier(s).